

Name : **Dr. G.Shanthi**  
 Designation :Assistant Professor  
 Department :Electronics and Communication Engineering  
 Mail ID : shanthi\_g@vnrvjiet.in  
 Experience (in years): Teaching:12 Research: Others (If any, Specify): 09 year



**1. Educational / Technical qualifications:**

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	Ph.D	2022	RF MEMS, RF MEMS Filters
2	M.Tech	2012	VLSI System Design
3	B.Tech	2009	ECE
4	PDIT	1996	Instrumentation
5	DECE	1993	ECE
6	SSC	1988	

**2. Teaching and Learning:**

- 2.1 Teaching Interests: VLSI Design, Pulse and Digital Circuits, Digital IC Applications, Switching Theory and Logic Design, Linear Integrated Circuit Applications, Electronic devices & Circuits, Basic Electronics, CPLD & FPGA, HDL Programming, Micro Processor and Interfacing, Basics of Nano Science and Technology, Digital System Design, Digital Logic Design.
- 2.2 Novel Teaching & Learning Techniques adopted: POGIL, Activity based learning, WIT and WIL, PPT, Lab Protocol, story board.
- 2.3. Involvement in curriculum updating / Design: Involved in Lab Protocol Design, Story Board Design of LDIC Lab, Curriculum Updation of STLD, VLSI Design, Digital Logic Design.

**3. Co-curricular and Extra-Curricular Activities**

- 3.1. Interests and Hobbies:—Reading books, Painting, Watching TV.
- 3.2. CCA/ECA Organized: NA
- 3.3. CCA/ECA participated: Industrial Visit with III B.Tech Students to NRSC Balanagar in March-2022.
- 3.4. Counseling and Mentoring Activity: 20 UG Students in ECE stream
- 3.5. Committees involved in:  
 Department level: Computer Networks Lab In charge  
 Institute Level: Member Stage Decoration Committee in Annual Day, Cultural day Programs.

**4. Conference / Workshop / Seminar / Guest Lectures:**

- 4.1 Conducted :
  - Organized Certification course on “ ASIC Design flow using Industry standard EDA tools”
- 4.2 Attended:
  - Short Term Course on “Embedded Systems “during March 2006 at VNRVJIET, Hyderabad.
  - Three day workshop on Virtual Instrumentation during Nov 2008 at VNRVJIET, Hyderabad.
  - Three day workshop on Embedded Processors and Systems during June 2010 at VNRVJIET, Hyderabad.
  - Two day workshop on Introduction to Virtual Instrumentation during June 2011, at VNRVJIET, Hyderabad.

- Staff Development Program on DSP Processor Architectures & Programming during Dec 2011, At VNRVJIET, Hyderabad.
- Two day workshop on Biomedical Signal Processing Using LABVIEW during Aug 2012 using LABVIEW
- AICTE Sponsored FDP on “VLSI DESIGN” during 20-05-2013 to 01-06-2013.
- Workshop on “Research Methodologies” at BITS Pilani Hyderabad Campus from 3-04-2015 to 4-04-2015.
- TEQIP-II Sponsored Work shop on "Real time Applications using LABVIEW" at VNRVJIET during 1st - 4th July 2015
- Participated in 2-Weeks ISTE STTP on “Technical Communication” Conducted by IIT-Bombay, Online activity and Face to face participation at Remote center of VNRVJIET during 8-10-2015 to 5-12-2015.
  - FDP program on "VLSI System Design" on 28-11-2015, Marri Laxman Reddy Institute of Technology and Management, Hyderabad
  - Workshop on “Analog Discovery Kit” at BVRIT, Hyderabad Campus from 26-02-2016 to 27-02-2016.
- Attended 2 week ISTE STTP on “CMOS Mixed Signal and RF VLSI Design Workshop” Conducted by IIT-Khargpur, Online activity and Face to face interaction at Remote center of VNRVJIET during 30-1-2017 to 4-2-2017.
- Attended SERB and ISRO Sponsored One Day Workshop on “Advances in RF MEMS Devices for Space Applications” during 24th, February, 2018 at KL University, Green Fields, Vaddeswaram, Vijayawada, Andhra Pradesh
- Participated in the two day workshop on “Technical Writing” held on 28<sup>th</sup> and 29<sup>th</sup> June 2019 at VNRVJIET conducted by Dept. of Hand S.
- Participated in the one week FDP on “Robotics and AI” jointly organized by E&ICT academies during 24<sup>th</sup>-28<sup>th</sup> June, 2019 by the Ministry of electronics and information Technology (MEITY) govt. of India. This programme is endorsed by AICTE/UGC/NBA.
  - Participated in the one week FDP on “VLSI chip Design Hands – On using open source EDA” jointly organized by E&ICT academies during 08<sup>th</sup> -12<sup>th</sup> July, 2019 by the Ministry of electronics and information Technology (MEITY) govt. of India.
  - Participated in the two day workshop on “Pedagogical Perspective of SWAYM-MOOCs” held on 15<sup>th</sup> and 16<sup>th</sup> May 2019 at JNTUH, Kukatpally, Hyderabad.
  - Participated in the one week FDP on “Sensor Networks and IOT” jointly organized by E&ICT academies NIT Warngal & VNRVJIET, Hyderabad during 26<sup>th</sup> -31<sup>th</sup> Aug. 2019 by the Ministry of electronics and information Technology (MEITY) govt. of India.
  - Attended for the three day work shop in “Basic Trainig Program in Nano Science and Technoogy, Supported by MHRD, Govt of India conducted at the center for Nano Science and Engg. Indian Institute of Science, Bangalore, from 14<sup>th</sup>-16<sup>th</sup> October-2019.
- Workshop on SERB Sponsored National Workshop on "Recent Trends in RF MEMS Devices for IOT Applications", KL University, Green Fields, Vaddeswaram, Vijayawada, Andhra Pradesh. 27<sup>th</sup>, December, 2019.
- Workshop on "Python programming with Industry Perspective", conducted by Electronics and ICT Academy, NIT Patna, and Dept. of ECE&EIE in Association with IEEE&ISTE, VNRVJIET, Hyderabad during 2nd-6th Dec, 2019.
- Attended for Wireless and Mobile Communication work shop conducted by E& ICT Academy NIT Warangal, at VNRVJIET, Hyderabad during 1st-6th July, 2019.

- Attended for "Effective and Efficient Online Teaching in the Age of Corona: A Hands-On Workshop" conducted by during 16<sup>th</sup> May, 2020 1 Week (online activity+face to face interaction).
- Attended Online Faculty Development Program on Modern Research Trends in Communication, Signal Processing and VLSI/MEMS conducted by Department of ECE, Andhra Loyola Institute of Engineering & Technology, Vijayawada during 19<sup>th</sup> - 23<sup>rd</sup> May, 2020.
- Attended 3 day FDP on "VLSI IC design flow". conducted by Department of ECE, Anurag University, Entuple Technologies during 28<sup>th</sup>-30<sup>th</sup> May, 2020
- Attended 3-day National online Faculty Development Programme on "Research Topics in VLSI and Industry Trends" conducted by Department of ECE, GMR Institute of Technology, GMR Nagar, Rajam-532127 during 29<sup>th</sup>-31<sup>st</sup> May, 2020.
- Attended 3-day International online Faculty Development Programme on "AI and IoT for medical applications" conducted by Department of ECE, GMR Institute of Technology, GMR Nagar, Rajam-532127 during 01<sup>st</sup>-3<sup>rd</sup> June, 2020.
- Attended Two-Day Online FDP on "Effective Technical Report Writing Using LaTeX", conducted by Dept. of ECE, MGIT in association with Swecha during 8<sup>th</sup> - 9<sup>th</sup> June 2020
- Attended Faculty Development Program on "Artificial Intelligence in Healthcare" conducted by Dept. of E&TC Engg. R. C. Patel Institute of Technology, Shirpur, Dist-Dhule(MS) – 425405 during 10<sup>th</sup>, 11<sup>th</sup> June, 2020.
- Attended "The BodhiTree and SAFE Tools for Effective Online Teaching: A Hands On Workshop". conducted by IIT, Bombay during 20<sup>th</sup> June, 2020, 1 Week (online activity+face to face interaction)
- Attended one week FDP on "Embracing the Creative side of Teaching and Learning Methods" conducted by R.M.K. College of Engineering and Technology, Puduvoyal, Thiruvallur Dt, TamilNadu during 29<sup>th</sup> June-3<sup>rd</sup> July, 2020 (On-line mode)
- Attended 2 weeks FDP on "Embedded UVM Open Source Emulation & Functional Verification" conducted by E & ICT Academy, NIT, Patna and Dept. of ECE, VNRVJIET, Hyderabad (Sponsored by MeitY HRD division, Ministry of ICT, Govt. of India) during 13<sup>th</sup> - 24<sup>th</sup> July, 2020
- Attended one week PDP on "NBA in a NUTSHELL" IEEE Student Branch and dept. of ECE, VNRVJIET, 13<sup>th</sup> - 24<sup>th</sup> July, 2020
- Attended one week FDP on "Future Nano Electronic Devices & Circuits" conducted by Dept. of ECE, MGIT, Hyderabad, Telangana during 6<sup>th</sup> - 11<sup>th</sup>, July, 2020
- Attended one week FDP on "Next Generation Semiconductor Devices Modelling and Simulation" conducted by Dept. of ECE, KL Deemed to be university, Vijayawada in Association with IETE Vijayawada during 4<sup>th</sup>- 8<sup>th</sup> August 2020.
- Five-Days Online Workshop on "Recent Trends in Innovative CMOS-MEMS Technologies and Applications: Hands on Learning" organized by Department of Electronics and Communication Engineering, National Institute of Technology Silchar, India from 11<sup>th</sup> -15<sup>th</sup> September, 2020(Online Mode).
- Attended 6 days International online FDP on "MEMS Based Sensors and Actuators for Biomedical Applications" conducted by Micro Electronics Research Group, Department of ECE, KLEF in association with IETE, Vijayawada Chapter during 2<sup>nd</sup> - 7<sup>th</sup> Nov, 2020.
- Five Days online National Workshop on "Recent Trends in Microelectronics Devices, VLSI Circuits and Their Applications" organized by Microelectronics Research Group, Dept. of ECE, KL Deemed to be university, Andhra Pradesh, India on from 25<sup>th</sup> -29<sup>th</sup> January, 2021(Online Mode).

- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Stress Management" from 13/09/2021 to 17/09/2021 at VNR Vignana Jyothi Institute of Engineering and Technology.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Artificial Intelligence(AI) in VLSI Chip DESIGN" from 06/12/2021 to 10/12/2021 at Koneru Lakshmaiah Education Foundation.
- Participated & completed successfully Training program on IP Awareness / Training program conducted by National Intellectual Property awareness mission On line Mode on 19th Oct,2022
- Participated & completed successfully SERB Sponsored International High-End Workshop on "Recent Trends in Semiconductor Devices/VLSI Chip Devices and it's Sensor Applications" conducted by Microelectronics and VLSI Research Group (MERG), Department of ECE, KLEF, Guntur, AP during 23rd-27th Jan,2023.
- Participated & completed successfully one week FDP on "Design and Implementation of advanced VLSI Architectures" conducted by Department of ECE, Lakireddy Bali Reddy College of Engineering, AP, India. During 13th - 17th Mar, 2023

## 5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures: Worked as Resource person for one Session FDP on VLSI Design flow conducted from 20-05-2013 to 01-06-2013. "Chipscope Pro Implementation"

5.2. Articles/Chapters published in Books:

5.3. Books published as single author or as editor:

5.4. Projects Guided:

a) UG: 10

b) PG: 5

5.5. Research Interests: Low Power VLSI, Error Detection Codes, Data Communications, Golay codes, RF MEMS.

5.6. Ph.D students: NA

a) Enrolled:

b) Submitted:

c) Awarded:

5.7. Papers published in reviewed Journals:

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Impact Factor / Citation Index	National/ International
1	Voice Acknowledge ment based Remote Home Computerisation Frame work	International Journal of Research	22366142/ March 2019 Vol :8 Issue 3	5.7	International Journal
2	FPGA Implementation of Encoder	International Journal of Advance	e-ISSN (O): 2348-4470 p-ISSN (P): 2348-6406	Impact Factor	International Journal

	and Decoder for Golay codes	Engineering and Research Development Volume 4, Issue 11, November - 2017		(SJIF): 4.72	
3.	FPGA Implementation of Encoder and Decoder for Golay codes	International Journal of Advance Engineering and Research Development Volume 4, Issue 11, November - 2017	e-ISSN (O): 2348-4470 p-ISSN (P): 2348-6406	Impact Factor (SJIF): 4.72	International Journal
4.	FPGA Implementation of SRAM Memory Testing Technique Using BISR Scheme	International Journal of Research (IJR) Volume 2, Issue 08,	e-ISSN: 2348-6848, p-ISSN: 2348-795X August 2015	3.541	International Journal
5.	Implementation of an Ultra-Lightweight Block Cipher	International Journal & Magazine of Engineering, Technology, Management and Research	ISSN No: 2348-4845 Volume No: 2(2015), Issue No: 2 (February)	1.7450	International Journal
6.	CHIPSCOPE Implementation of CRC circuit Architecture.	IOSR Journal of VLSI and Signal Processing	ISSN : 2319-4200, Volume :2, Issue :1, ISBN :2319-4197.	1.608	International Journal
7.	3-D Image Reconstruction from 2-D Image using Lab - VIEW	IJEAT,	ISSN : 2249-8958, Volume :2	1.121	International Journal
8	Voice Acknowledgement based Remote Home Computerisation Frame work	International Journal of Research	22366142/ March 2019 Vol :8 Issue 3	5.7	International Journal

9	Electromagnetic Analysis of MEMS-Based Tunable EBG Bandstop Filter Using RF MEMS Switch for Ku-Band Applications	Lecture Notes in Electrical Engineering book series (LNEE, volume 655)	First Online: 24 June 2020 <a href="https://doi.org/10.1007/978-981-15-3828-5-18">https://doi.org/10.1007/978-981-15-3828-5-18</a>	1.476	International Journal
10	Design and analysis of a RF MEMS shunt Switch using U-shaped meanders for low actuation voltage	Microsystem Technologies, Micro- and Nano systems Information Storage and Processing Systems	ISSN 0946-7076 DOI 10.1007/s00542-020-04864-z	1.74	International Journal
11	Analysis of EBG Bandstop Filter using U – Shaped Meander type Electrostatically Actuated RF MEMS Switch	Microsystem Technologies, Micro- and Nano systems Information Storage and Processing Systems	First online January 2021, DOI 10.1007/s00542-020-05157-1	1.74	SCI, International Journal
12	Design and Implementation of Higher Performance Decimal Compressors Using Multiplexer Based Approach	Design Engineering	ISSN: 0011-9342   Year 2021 Issue: 8   Pages: 13284-13304	1.41	Scopus, International Journal

5.8. Papers presented at National / International conferences:

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	SRAM Memory Testing Technique Using BISR Scheme	Institute of Research and Journals	International	30 <sup>th</sup> Oct.2015
2	New Analytical Capacitance Modeling of Perforated Switch Considering Fringing effect	5 th International Conference on 'Microelectronics, Circuits and Systems', Micro2018	International	19 <sup>th</sup> -20 <sup>th</sup> May 2018
3	Parallel Cyclic Redundancy Check Realization	6th International conference on innovations in Electronics and Communcation Engineering (ICIECE-2017)	International	21st - 22nd July 2017.
4	Design of Low Pull-In Voltage and high Isolation of step Structure Capacitive RF MEMS Switch for Satellite Applications	IEEE Electron Device Kolkata Conference (2018, IEEE EDKCON)	International	24th-25th Nov,2018
5	Electromagnetic Analysis of MEMS Based Tunable EBG Bandstop Filter using RF MEMS Switch for Ku – Band Applications	International Conference on Micro-Electronics, Electromagnetics and Telecommunications (ICMEET-2019)	International	6th-7th Dec,2019
6	An Efficient FPGA Implementation of Cascade Integrator Comb Filter	2022 International Conference on Intelligent Innovations in Engineering and Technology (ICIET)	International	22 <sup>nd</sup> -24 <sup>th</sup> Sep,2022

5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

**6. Awards / Honors received:**

**7. Motto:** Knowledge is power.